

METHOD OF MULTIPLE-CARRIER COMMUNICATION
WITHIN A NONCONTIGUOUS WIDEBAND SPECTRUM
AND APPARATUS THEREFOR

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Abstract of the Disclosure

A method (20) of orthogonal frequency-division multiplex (OFDM) communication via a plurality of subchannels (30) within a noncontiguous wideband channel (24) is provided.

10 The method (20) determines an SNR for each of the subchannels (30). The method (20) then designates a subchannel (30) as clear (93) when its SNR is greater than a least-SNR threshold (70), as impeded (95) when its SNR is less than the least-SNR threshold and greater than an SNR-evaluation threshold, and

15 as obstructed (111) when its SNR is less than both the least-SNR and the SNR-evaluation thresholds. The method (20) then transmits OFDM data (34) so that each of the clear subchannels receives the OFDM data (34) at a maximum subchannel signal level (40), each of the impeded subchannels

20 receives the OFDM data (34) at an intermediate subchannel signal level (42), and each of the obstructed subchannels receives the OFDM data (34) at zero subchannel signal level (44).